



NEWS RELEASE

City of Austin PO Box 1088 Austin, Texas 78767

For Immediate Release

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WAGE WAR ON WEEDS, NOT WATER!

Over 45,000 pounds of atrazine, a weed killing chemical, are sold each year in Austin in the very popular weed and feed lawn care products. The highly mobile chemical is not just staying on our lawns, but is also traveling to our creeks and groundwater. Atrazine is showing up frequently at more than 50% of our surface water monitoring sites and 70% of the groundwater monitoring sites city-wide. It has also been detected in 86% of the samples from Barton Springs pool.

While the levels of the chemical detected are fortunately still low, the City of Austin and the Texas Cooperative Extension are launching a new educational program to keep Austin's water clean. Through Grow Green, their earth-wise landscaping program, they are asking homeowners city-wide to take action now and avoid using weed and feed products.

Weed and feeds combine both fertilizer and weed killer and are not environmentally-sound for several reasons. First, the best time to fertilize is NOT the best time to use an herbicide. Equally important is the fact that broadcasting a weed killer is considered excessive in most cases. Any chemical that is not absorbed by the targeted weed stays unused on the turf where it can wash off during rain to Austin's creeks or filter into our groundwater supply. The weed killing chemical can also find its way indoors on shoes and hands.

You can help protect water quality by purchasing a straight fertilizer (organics are a good alternative) and then hand-pulling or spot-treating weeds instead. If you use a lawn care professional for yard maintenance, please ask them to treat weed problems only when they are visible and then make sure the chemical isn't over-applied. For a complete list of good fertilizing and weed killing tips, visit the Grow Green display at your local nursery or home improvement center or at www.growgreen.org.

With a little help from you, we can help protect our water one yard at a time.



grow green
earth-wise choices for Austin area landscapes

IMPACTS OF LANDSCAPING CHEMICALS

ATRAZINE

An estimated 46,000 lbs. of the herbicide, atrazine, an active ingredient in weed and feed fertilizer, is sold in Austin annually.

Regulatory Limits (ppb = parts per billion = micrograms/liter = $\mu\text{g/L}$)

EPA drinking water limit (1998)	3.00 ppb
California drinking water goal (1999)	0.15 ppb

Aquatic Life Criteria

Lowest estimate of adverse effects in frogs (Hayes 2002)	0.10 ppb
Canadian guideline for aquatic health (2006)	1.80 ppb
EPA acute concentration (2001)	1,500.00 ppb

Atrazine in Austin springs and wells

Despite a short half-life, atrazine is frequently detected in Austin groundwater though not detected routinely at problem levels.

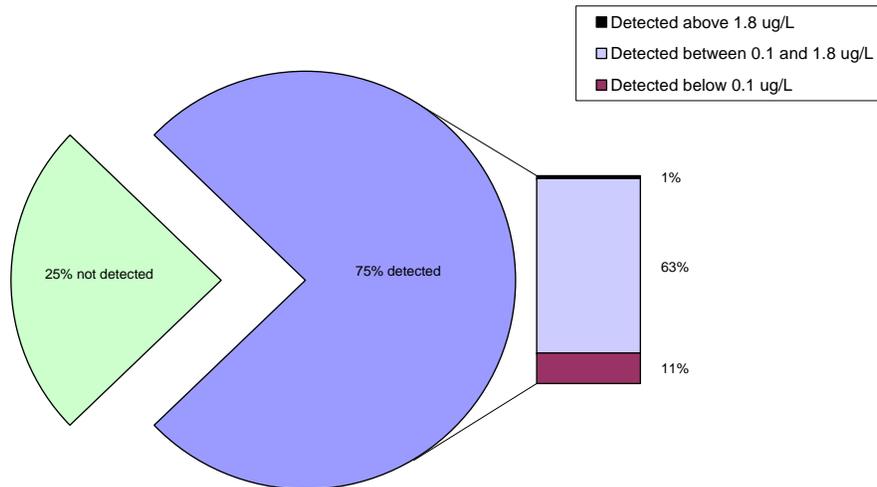
Out of 216 samples at 17 different springs in Austin since year 2000:

- Atrazine detected in 75% of spring samples
- Atrazine detected at every spring monitored at least once
- Atrazine detected in 86% of samples from Barton Springs
- Atrazine detected above 1.8 ppb in only 3 samples (1% of total)

Out of 56 USGS samples from 13 monitoring wells in Austin since year 2000:

- Atrazine detected in 27% of samples
- Atrazine never detected above EPA drinking water limit

Atrazine in Austin Springs (2000-2006)



Atrazine in Austin creeks

Atrazine is detected more frequently in Austin creeks (surface water) following storm events, but has never been detected above aquatic life EPA acute concentrations.

Out of 63 samples by the USGS from 13 different creek sites in Austin since year 2000:

- Atrazine detected in 91% of post-storm samples
- Atrazine detected in 55% of non-storm influenced (baseflow) samples
- Atrazine detected at every creek site monitored at least once, including Barton and Bull creeks.
- Atrazine only detected above 1.8 ppb in 4 samples (3 in storm, 1 in baseflow)
- Atrazine never detected above EPA acute concentration, even in post-storm samples

NUTRIENTS IN AUSTIN SPRINGS

Nitrate, a component of fertilizers, degrades water quality by increasing algae growth, which reduces oxygen levels in water and can potentially kill aquatic life. Nitrate is highly mobile and infiltrates quickly to groundwater and springs.

Nitrate regulatory limits (TCEQ)

Drinking water limit: 10.0 ppm

Aquatic Life (TCEQ)

Screening level): 2.76 ppm

- City-wide, nitrate levels are higher in developed areas than undeveloped (see chart)
- In Northwest Austin, nutrient levels (nitrogen and phosphorus) in urban springs are eight times greater than springs in undeveloped areas.
- Spring water samples for undeveloped, developing and developed regions from two data sets show that nitrate is at levels of concern for most of the developed area.
- Nutrients from fertilizer runoff have been attributed to recent nuisance algae blooms at Barton Springs pool www.ci.austin.tx.us/watershed/algae.htm
- Nitrate is above the TCEQ level of concern for aquatic life in some springs. It may affect some amphibians at observed levels. It is sometimes the limiting nutrient in Town Lake algal blooms-particularly upstream of Barton Springs inflow.
- Phosphorus levels in soils are high throughout Austin
- Phosphorus is usually the limiting nutrient for algal blooms in Town Lake and probably in Barton Springs, other springs, and creeks. Additional phosphorus (another component of fertilizers) may contribute to more blooms.

Austin-wide Average Nitrate Levels: Creeks vs. Springs

